

**What is claimed is:**

1 1. A method for performing segmented resource reservation, comprising:  
2 reserving, for at least one call, network resources associated with a first  
3 network according to its own reservation policy and based on an indication from a  
4 calling party; and  
5 reserving, for the at least one call, network resources associated with a  
6 second network according to its own reservation policy and based on an indication  
7 from a called party, the second network being coupled to the first network.

1 2. The method of claim 1, wherein:  
2 the indication from the calling party being a setup message sent from the  
3 originating interface unit to the originating gate controller,  
4 the indication from the called party being a setup message sent from the  
5 terminating interface unit to the terminating gate controller.

1 3. The method of claim 1, wherein:  
2 the indication from the calling party being a first setup message indicating a  
3 maximum limit for network resources within the first network to be reserved,  
4 the indication from the called party being a second setup message indicating  
5 a maximum limit for network resources within the second network to be reserved.

1 4. The method of claim 1, wherein:  
2 the first network and the second network are coupled through a third  
3 network,  
4 the indication from the calling party being a first setup message indicating a  
5 maximum limit for network resources within the first network and within the third  
6 network to be reserved,  
7 the indication from the called party being a second setup message indicating  
8 a maximum limit for network resources within the second network and within the  
9 third network to be reserved.

1 5. The method of claim 1, wherein:  
2 the reservation policy for the first network differing from the reservation  
3 policy for the second network.

1 6. The method of claim 1, wherein:  
2 the first network is an access network,  
3 the second network is a backbone network connected to the first network,  
4 the reservation policy for the first network relates to the reservation of  
5 network resources on a per call basis,  
6 the reservation policy for the second network relates to the reservation of  
7 network resources on a multiple call basis.

1 7. The method of claim 1, wherein:  
2 the first network is an access network,  
3 the second network is a backbone network connected to the first network,  
4 the reservation policy for the first network relates to the reservation of  
5 network resources on a per call basis,  
6 the reservation policy for the second network relates to the reservation of  
7 network resources on a per call basis.

1 8. The method of claim 1, wherein:  
2 the reservation policy for the first network relates to bidirectional capacity  
3 within the first network,  
4 the reservation policy for the second network relates to a uni-directional  
5 capacity within the second network.

1 9. The method of claim 1, wherein:  
2 the reservation policy for the first network relates to bidirectional capacity  
3 within the first network,

4 the reservation policy for the second network relates to a bidirectional  
5 capacity within the second network.

1 10. The method of claim 1, wherein:

2 the first network is a first access network associated with a calling party for  
3 one call and connected to a backbone network,

4 the second network is a second access network associated with a called party  
5 for the one call and connected to the backbone network,

6 the reservation policy for the first network relates to the reservation of  
7 network resources for the one call,

8 the reservation policy for the second network relates to the reservation of  
9 network resources for the one call.

1 ~~11.~~ A method for performing segmented resource allocation, comprising:

2 receiving a setup message from an interface unit, the setup message

3 indicating a maximum limit of network resources to be reserved;

4 receiving a reserve message from the interface unit; and

5 reserving, for one call, network resources associated with a first network

6 according to its own reservation policy based on the received setup message and

7 after receiving the reserve message, the interface unit being connected to the first

8 network, the reservation policy for the first network relating to bidirectional capacity

9 within the first network.

1 12. The method of claim 11, further comprising:

2 sending a backbone reserve message to a second network coupled to the first  
3 network,

4 network resources associated with the second network being reserved for at

5 least the one call according to the second network's own reservation policy based on

6 the backbone reserve message.

1 13. The method of claim 11, further comprising:  
2 sending a backbone reserve message to a second network coupled to the first  
3 network,  
4 network resources associated with the second network being reserved for at  
5 least the one call according to the second network's own reservation policy based on  
6 the backbone reserve message,  
7 the reserved network resources associated with the second network being  
8 network resources for a forward direction of the call.

1 14. The method of claim 11, wherein:  
2 network resources associated with a second network being reserved for the  
3 one call according to the second network's own reservation policy and based on a  
4 second setup message and a second reserve message received from a second  
5 interface unit coupled to the second network.

1 15. The method of claim 11, further comprising:  
2 sending a backbone reserve message to a second network coupled to the first  
3 network, network resources associated with the second network being reserved for at  
4 least the one call according to the second network's own reservation policy based on  
5 the backbone reserve message, the reserved network resources associated with the  
6 second network being network resources for a first direction of the call,  
7 network resources associated with a third network being reserved for the one  
8 call according to the third network's own reservation policy and based on a second  
9 setup message and a second reserve message received from a second interface unit  
10 coupled to the second network, the third network being coupled to the first network  
11 through the second network,  
12 a second set of network resources associated with the second network being  
13 reserved for at least the one call based on a second backbone reserve message sent  
14 from the second interface unit, the second set of reserved network resources  
15 associated with the second network being in a second direction of the call,

16 the second direction being from the second interface unit towards the first  
17 interface unit, the first direction being from the first interface unit to towards the  
18 second interface unit.

1 16. A method for performing segmented resource reservation, comprising:  
2 receiving a reserve message from an interface unit;  
3 reserving, for one call, network resources associated with a first network  
4 according to its own reservation policy;  
5 selecting a reservation policy from a plurality of reservation policies  
6 associated with a second network, a network edge device connecting the first  
7 network to the second network; and  
8 sending a backbone reserve message to the second network based on the  
9 selected backbone reservation policy, network resources associated with the second  
10 network being reserved based on the sent backbone reserve message that indicates  
11 the selected reservation policy.

1 17. The method of claim 16, wherein:  
2 the reservation policy for the first network defines a bidirectional capacity  
3 within the first network,  
4 the reservation policy for the second network defines a uni-directional  
5 capacity within the second network.

1 18. The method of claim 16, wherein:  
2 the reservation policy for the first network defines a bidirectional capacity  
3 within the first network,  
4 the reservation policy for the second network defines a bidirectional capacity  
5 within the second network.

1 19. The method of claim 16, wherein:  
2 the set of reservation policies associated with the second network includes a  
3 reservation policy that reserves network resources within the second network on a  
4 per-call basis.

1 20. The method of claim 16, wherein:  
2 the set of reservation policies associated with the second network includes a  
3 reservation policy that reserves network resources within the second network on a  
4 multiple call basis.

1 21. The method of claim 16, wherein:  
2 the set of reservation policies associated with the second network includes a  
3 reservation policy that does not reserves network resources within the second  
4 network due to assumed bandwidth availability.

1 22. The method of claim 16, wherein:  
2 the network edge device is an originating network edge device, the interface  
3 unit is an originating interface unit, the originating network edge device is coupled  
4 to the originating interface unit,  
5 the first network is an access network associated with the calling party,  
6 the second network is a backbone network.

1 23. The method of claim 16, wherein:  
2 the network edge device is an terminating network edge device, the interface  
3 unit is an terminating interface unit, the terminating network edge device is coupled  
4 to the terminating interface unit,  
5 the first network is an access network associated with the called party,  
6 the second network is a backbone network.

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